IN THE CLAIMS:

The following is a complete listing of claims in this application.

1. (original) A method of testing a structural component (BT) having a complex surface contour (OK) by means of ultrasound, wherein at least one ultrasonic head (UPK) is guided by means of a manipulator (MM) having several axial drives (MX, MJ, MZ, MA, MB) along a plurality of axes at a defined spacing (A) along the surface contour (OK) of the structural component (BT) and wherein, according to the movement of at least one drive, equidistant pulses are generated as trigger signals for the geometrically correct allocation of received ultrasonic test data for the surface contour (OK) of the structural component, characterized in that the length of a surface line (OL) reproducing the surface contour (OK) is calculated, that support points for guiding the ultrasonic head (UPK) are calculated, that the axial drives (MX, MJ, MZ, MA, MB) of the manipulator (MM) are moved synchronously along the predetermined support points, and that a trigger drive (MRT) is controlled in synchronism with the axial drives (MX, MJ, MZ, MA, MB) and, together with all engaged axial drives, is displaced in accordance with the predetermined surface line (OL), the trigger drive (MRT) being notionally guided by the surface line (OL) and equidistant trigger pulses being generated relative to the surface line (OL).

2. (original) The method according to claim 1, characterized in that the length of the surface line (OL) is calculated for each individual linear measuring movement of the ultrasonic head (UPK) along the surface contour of the structural component to be tested.

3. (currently amended) The method according to claim 1 ~~or~~

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~~2~~, characterized in that the support points are calculated so as to produce a meander-shaped measurement movement along the surface contour (OK) of the structural component to be tested.

4. (currently amended) The method according to ~~at least one of the preceding claims~~ claim 1, characterized in that the control of all axial drives (MX, MY, MZ, MA, MB) and of the trigger drive (MRT) are effected by an NC control.

5. (currently amended) The method according to ~~at least one of the preceding claims~~ claim 1, characterized in that the trigger pulses are generated for an ultrasonic device guiding the head equidistantly along the surface line (OL).

6. (original) A device for testing a structural component (BT) having a complex surface contour (OK), comprising a manipulator (MM) movable on one or more axes by means of axial drives (MX, MY, MZ, MA, MB), by which at least one ultrasonic head (UPK) is displaceable at a defined spacing along the surface contour (OK) of the structural component (BT), the axial drives being controllable by means of a control (NCS) and at least one encoder (E) being provided for generating trigger pulses for the geometrically correct allocation of received ultrasonic test data for the surface contour of the structural part, characterized in that, in addition to the axial drives (MX, MY, MZ, MA, MB), a trigger drive (MRT) is provided for generating the trigger pulses, that the trigger drive (MRT) is controllable in synchronism with the axial drives (MX, MY, MZ, MA, MB) of the manipulator (MM), the axial drives being synchronously displaceable along predetermined support points and the trigger drive (MRT), synchronized by the control (NCS), being movable together with the axial drives according to a predetermined length of a surface line (OL) reproducing the surface contour (OK), and that trigger pulses are applied to the encoder (E) of the trigger drive

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(RMT) which are equidistant relative to the surface line (OL) of the complex surface contour (OK).

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